# Chapter 1 – Quiz Answers

## Circle the letter of the one correct answer in each of the following statements.

**1. Weights and measures officials examine vehicle scales to protect:**

**a. buyers and sellers of commodities shipped by truck.**

b. manufacturers of heavy-duty vehicles.

c. roadways and taxpayers who pay for their construction and repair.

**2. Weights and measures officials examine axle-load scales to protect:**

a. buyers and sellers of bulk loads shipped by truck.

b. producers of materials transported by vehicle.

c. manufacturers of heavy-duty vehicles.

**d. roadways and taxpayers who pay for their construction and repair.**

**3. It is important to understand the construction, operation, and use of vehicle and axle-load scales so that you can:**

a. tell the repair agency how to repair the scale if it is defective.

**b. properly examine the scale and better understand the purpose of the required tests.**

c. make minor repairs to the scale during your examination.

**4. When using a vehicle scale in a commercial transaction to weigh a two-axle vehicle, a reading should be taken when:**

**a. both axles are on the scale platform.**

b. the front axle is on the approach and the rear axle is on the platform.

c. the rear axle is on the approach and the front axle on the platform.

**5. Indicating elements found in vehicle and axle-load scale systems may include:**

**a. <u>weighbeams, mechanical dials, or electronic digital indicators.</u>**

b. lever systems.

c. the pit and the deck.

**6. In the case of a vehicle or axle-load scale, "concentrated load capacity" is:**

a. the nominal capacity of the scale.

**b. <u>a capacity rating that defines the maximum load concentration for which the weighbridge is designed.</u>**

c. the amount of test load that may be simultaneously applied to two or more sections.

d. the maximum load that a truck may carry when being weighed on the scale.

**7. To determine the number of sections for a particular scale:**

a. look for the manufacturer's label

b. ask the owner.

c. measure the deck length in feet and divide by four.

**d. <u>look under the platform and divide the number of main load-bearing supports by two.</u>**

## Part 2

## Circle the letter for the correct term that matches the following definitions.

**8. A system of indication or recording in which values are presented as a series of graduations in combination with an indicator, or in which the most sensitive element of an indicating system moves continuously during the operation of the device.**

a. Indicator

b. Digital type

**c. <u>Analog type</u>**

**9. A device on which the weights of applied loads of various magnitudes are automatically indicated throughout all or a portion of the weighing range of the scale.**

a. Indicating element

**b. Automatic indicating scale**

c. Remote indicator

**10. A device that is permanently installed in a fixed location, having a load-receiving element specially adapted to determining the load of all wheels (1) on a single axle or (2) on a tandem axle of a highway vehicle.**

**a. Axle-load scale**

b. Vehicle scale

c. Automatic-indicating scale

**11. A device on which the weights of loads of various magnitudes are indicated solely by means of one or more weighbeam bars, either alone or in combination with counterpoise weights.**

a. Weighbridge

**b. Beam scale**

c. Fractional bar

**12. The structural frame carried by the main bearings and supporting the load-receiving element in a large capacity scale.**

a. Axle-load scale

**b. Weighbridge**

c. Weighbeam

**13. A defining line, or one of the lines defining the subdivisions of a graduated series. The term includes such special forms as raised or indented or scored reference "lines" and special characters such as dots.**

a. Recording element

b. Balance indicator

**c. <u>Graduation</u>**

**14. An element incorporated into a weighing or measuring device by means of which its performance relative to quantity or money value is "read" from the device itself as, for example, an index-and-graduated-scale combination, a weighbeam-and-poise combination, a digital indicator, or similar element.**

a. Recording element

b. Balance indicator

**c. <u>Indicating element</u>**

**15. An element incorporated in a weighing or measuring device by means of which its performance relative to quantity or money value is permanently recorded on a tape, ticket, card, or the like, in the form of a printed, stamped, punched, or perforated representation.**

a. Scale division, value of "d"

b. Digital type

**c. <u>Recording element</u>**

**16. The smallest subdivision of the scale for analog indication or the difference between two consecutively indicated or printed values for digital indication or printing.**

a. Indicator

**b. <u>Scale division, value of "d"</u>**

c. Graduation

**17. Designed for determining or balancing out the weight of packaging material, containers, vehicles, or other materials that are not intended to be included in net-weight determinations.**

a. Zero-load balance

b. Weighbeam

**c. <u>Tare mechanism</u>**

**18. An element contained within the housing of an automatic-indicating scale and mechanically applied to and removed from the mechanism. Its application will increase the range of automatic indication, normally in increments equal to the reading-face capacity.**

a. Load cell

b. Poise

**c. <u>Unit weight</u>**

**19. An element comprising one or more bars, equipped with movable poises or means of applying counterpoise weights or both.**

**a. <u>Weighbeam</u>**

b. Balance indicator

c. Balance ball

**20. A correct weight indication or representation of zero when there is no load on the load-receiving element.**

a. Semi-automatic zero setting mechanism

**b. <u>Zero-load balance</u>**

c. Indicator

**21. A device in which the weight registration is accomplished by pressing a prepared and properly positioned card or ticket against type face set in or formed on a properly positioned type bar or bars.**

a. Poise

**b. Type registering beam**

c. Weighbeam

**22. A movable weight mounted upon or suspended from a weighbeam bar and used in combination with graduations, and frequently with notches, on the bar to indicate weight values.**

**a. Poise**

b. Unit weight

c. Indicating element